(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 20 July 2006 (20.07.2006)

(10) International Publication Number WO 2006/076458 A1

(51) International Patent Classification: F25C 3/04 (2006.01) E03B 7/12 (2006.01)

(21) International Application Number:

PCT/US2006/001027

(22) International Filing Date: 10 January 2006 (10.01.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/643,661 13 January 2005 (13.01.2005) US

(71) Applicant and

(72) Inventor: SANTRY, Charles, N. [US/US]; 16 Clyde Street, Chestnut Hill, Massachusetts 02167 (US).

- (74) Agent: CAROTHERS, Floyd, B.; Carothes and Carothers, 445 Fort Pitt Blvd., Suite 500, Pittsburgh, Pennsylvania 15219 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

WO 2006/076458 A1

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,

KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,

LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI,

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US,

UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,

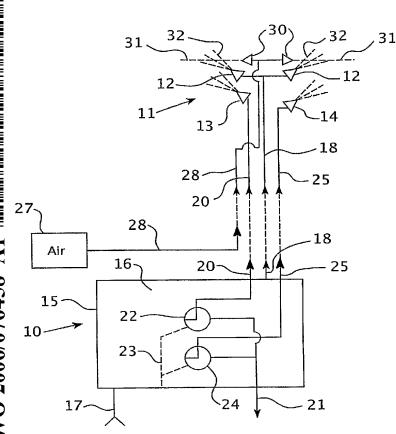
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FREEZE-PROOF WATER VALVE FOR SUPPLYING SECONDARY WATER TO A SNOW MAKING APPARATUS



(57) Abstract: A freeze-proof water valve (10) for supplying secondary water under pressure in freezing ambient conditions to a snow making apparatus (11) having primary water spray nozzles (12) and secondary water spray nozzles (13,14). The valve housing (15) is provided with an interior primary water chamber (16) with a water inlet (17) and a primary water outlet (18) for continuous passage of primary water under pressure therethrough for delivery to primary water spray nozzles (12) on the snow making apparatus (11). A valve body (22,24) is mounted within this valve housing (15) within the primary water chamber (16) for flow of water therearound from the housing inlet (17) to the primary outlet (18) to prevent freeze-up of the valve body (22,24) when in the off position. The valve body (22,24) is movable between an on position and an off position whereby water from the primary chamber (16) is directed to a secondary outlet (20,25) when the valve (22,24) is in the on position for feeding water to the secondary water spray nozzle or nozzles (13,14). Water in the primary chamber (16) is shut off from this secondary outlet (20,25) and water in this secondary outlet (20,25) is directed instead to a water drain outlet (21) for discharge when the valve (22,24) is in the off position.

WO 2006/076458 A1